

REMARKS

Claims 1 – 37 have been canceled. New claims 38 – 61 have been added. Reconsideration of this application in view of the amendments noted is respectfully requested.

Claims 1 – 37 have been replaced with new claims 38 – 61.

In the Office Action, claims 1 – 8, 10, 12 – 15, 21 – 26, and 32 – 37 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 – 3, 9 – 11, 25 – 28, 33, and 37 were rejected under 35 U.S.C. 102(b) as being anticipated by Browne et al. (U.S. Patent No. 5,362,937, hereinafter “Browne”). Claims 4 – 7 and 12 – 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Browne in view of Nadeau et al. (U.S. Patent No. 4,733,051, hereinafter “Nadeau”). Claims 8, 16, 17 – 24, 29 – 32, and 34 – 36 were rejected under 35 U.S.C. 103(a) as being unpatentable over Browne in view of Nadeau, and further in view of Carpenter et al. (U.S. Patent No. 2,427,350, hereinafter “Carpenter”). Applicant respectfully traverses these rejections.

Claims 1 – 37 have been canceled, thereby obviating the rejections of these claims.

Support for the new claims can be found at least on pages 10 – 13 of the specification and FIGS. 3 – 5 of the drawings. As shown in FIG. 5, the apparatus 10, in use, moves the substrate 40 in a (rotational) direction of the Y axis. The welding gun(s) 23 is (are) mounted on the apparatus such that it is (they are) angled to generally lie near the X axis, namely in a direction generally transverse to the Y axis, i.e. *generally transverse to the given direction of movement of the substrate 40*. Furthermore, the welding wire is fed from the (or each) welding gun 23 to the surface of the substrate 40 along a direction generally near the X axis, i.e. *the welding gun feeds the welding wire to the surface of the substrate in the direction generally transverse to said given direction of movement of the substrate*. In this context, “transverse to said given direction” means crosswise to said given direction, i.e. from a side of said given direction.

Therefore, in the present invention as defined by the claims, not only is the welding gun (or guns) mounted to be generally transverse to the direction of movement of the

substrate, but also the welding wire is fed to the surface of the substrate from the welding gun in generally the same direction, i.e. generally transverse (crosswise) to the direction of movement of the substrate. Moreover, the substrate is rotated in a given direction about a generally horizontal axis with respect to the welding gun.

Turning to the Browne reference, Browne discloses an apparatus in which the welding heads 43 are angled at an acute angle relative to the movement direction of the substrate 120 but such that welding wire is fed from the welding heads 43 generally in the direction of movement of the substrate 10. Consequently, the welding heads 43 disclosed in Browne are not mounted generally transversely to the direction of movement of the substrate and the welding wire is not fed generally transversely to the direction of movement of the substrate as required by new independent claims 38 and 47. Therefore, the new claims are patentable over Browne.

Further, Browne relates to hardfacing metal plates. Column 1, lines 24 – 25 of Browne discusses problems with methods of overlaying plates that use cylindrical substrates. Browne addresses these problems by not using cylindrical substrates. Thus, Browne is not applicable to a method of overlaying plates that uses cylindrical substrates. Moreover, one of ordinary skill in the art would not combine Browne with any reference that uses cylindrical substrates. In other words, Browne teaches away from the use of cylindrical substrates in overlaying metal plates.

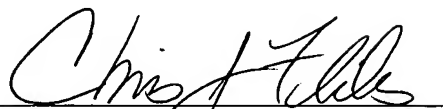
For all of these reasons, applicant respectfully requests that the Section 112, second paragraph rejection and as well as the Section 102(b)/103(a) rejections be withdrawn.

This amendment and request for reconsideration is felt to be fully responsive to the comments and suggestions of the examiner and to place this application in condition for allowance. Favorable action is requested.

Respectfully submitted,

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A handwritten signature in cursive script, appearing to read "Chris Fildes", written over a horizontal line.

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